

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1                   1.       (Currently amended) A method of aligning a plurality of images, the  
2 method comprising:  
3                   providing a marker on a first image and a second image;  
4                   overlapping the first image and the second image to match the marker on the first  
5 image with the marker on the second image; and  
6                   blending an overlap section of the first image and the second image, including  
7 providing a smooth transition between the first image and second image by selectively providing  
8 from 0% to 100% of the second image; and  
9                   computing an absolute difference value between the pixel intensities of the  
10 overlapping portions of the first and second images to validate alignment between the first and  
11 second images.

1                   2.       (Original) The method of claim 1 comprising realigning at least one of  
2 the first image and second image if it is determined that the first and second images are  
3 misaligned.

1                   3.       (Original) The method of claim 1 wherein the first and second images  
2 are obtained from a digital radiography device.

4.       (Canceled)

1                   5.       (Currently amended) ~~The method of claim 4 wherein blending~~  
2 ~~comprises:~~ A method of aligning a plurality of images, the method comprising:  
3                   providing a marker on a first image and a second image;  
4                   overlapping the first image and the second image to match the marker on the first  
5 image with the marker on the second image;

6                   blending an overlap section of the first image and the second image; and  
7                   computing an absolute difference value between the pixel intensities of the  
8 overlapping portions of the first and second images to validate alignment between the first and  
9 second images.  
10                  the blending comprising:  
11                    computing a pixel intensity of the pixels of first image in the overlap  
12            section;  
13                    computing a pixel intensity of the pixels of the second image in the  
14            overlap section that overlap the pixels of the first image in the overlap section; and  
15                    displaying for each pixel in the overlap section a largest pixel intensity of  
16            the overlapping pixels from the first image and second image.

1                  6.       (Currently amended) ~~The method of claim 4 wherein blending~~  
2 ~~comprises:~~ A method of aligning a plurality of images, the method comprising:  
3                    providing a marker on a first image and a second image;  
4                    overlapping the first image and the second image to match the marker on the first  
5 image with the marker on the second image;  
6                    blending an overlap section of the first image and the second image; and  
7                    computing an absolute difference value between the pixel intensities of the  
8 overlapping portions of the first and second images to validate alignment between the first and  
9 second images.  
10                  the blending comprising:  
11                    computing a pixel intensity of the pixels of first image in the overlap  
12            section;  
13                    computing a pixel intensity of the pixels of the second image in the  
14            overlap section that overlap the pixels of the first image in the overlap section; and  
15                    displaying for each pixel in the overlap section a smallest computed pixel  
16            intensity from the overlapping pixels from the first image and second image.

1                   7.       (Currently amended) The method of claim 1 ~~claim 4~~ wherein blending  
2 comprises:  
3                   computing a pixel intensity of the pixels of first image in the overlap section;  
4                   computing a pixel intensity of the pixels of the second image in the overlap  
5 section that overlap the pixels of the first image in the overlap section; and  
6                   displaying for each pixel in the overlap section an average pixel intensity of the  
7 overlapping pixels of the first and second images in the overlap section.

1                   8.       (Currently amended) The method of claim 1 ~~claim 4~~ wherein blending  
2 comprises providing a smooth transition between the first image and second image by selectively  
3 providing from 0% of the first image to 100% of the first image in the overlap section.

9.       (Canceled)

1                   10.      (Currently amended) The method of claim 1 ~~claim 4~~ wherein the first  
2 and second images comprise a plurality of pixels, each of the pixels having a pixel intensity,  
3 wherein in the overlap section a portion of the pixels in the first image overlap a portion of the  
4 pixels in the second image, wherein the overlap section comprises a first end and a second end,  
5 wherein blending comprises:  
6                   displaying 100% of the pixel intensity of the first image at the first end of the  
7 overlap section;  
8                   displaying 50% of the pixel intensity of the first image with 50% of the pixel  
9 intensity of the overlapping pixels of the second image at a halfway point of the overlap section;  
10 and  
11                  displaying 100% of the pixel intensity of the second image at the second end of  
12 the overlap section.

1                   11.     (Original)   The method of claim 10 wherein blending further comprises  
2     displaying pixel intensities from the first image and the second image with a weighting for the  
3     combination which changes in a non-linear manner from the first end of the overlap section to  
4     the second end of the overlap section.

1                   12.     (Original)   The method of claim 10 wherein blending further comprises  
2     displaying pixel intensities from the first image and the second image with a weighting for the  
3     combination which changes in a linear manner from the first end of the overlap section to the  
4     second end of the overlap section.

1                   13.     (Currently amended)   A method of stitching a plurality of images, the  
2     method comprising:  
3                   providing a marker on a first image and a second image;  
4                   overlapping the first image and the second image to create an overlap section,  
5     wherein overlapping matches the marker on the first image with the marker on the second image;  
6                   calculating an absolute difference between the pixel intensity values of the  
7     overlapping portions of the first and second images in the overlap section so as to validate  
8     alignment between the first and second images; ~~and~~  
9                   blending the overlap section of the first image and the second image; and  
10                  adjusting a position of at least one of the first or second images by a plurality of  
11     fixed steps.

1                   14.     (Original)   The method of claim 13 wherein the first and second images  
2     are obtained from a digital radiography device.

1                   15.     (Currently amended)   ~~The method of claim 13 wherein blending~~  
2     ~~comprises:~~ A method of stitching a plurality of images, the method comprising:  
3                   providing a marker on a first image and a second image;  
4                   overlapping the first image and the second image to create an overlap section,  
5     wherein overlapping matches the marker on the first image with the marker on the second image;

6                    calculating an absolute difference between the pixel intensity values of the  
7 overlapping portions of the first and second images in the overlap section so as to validate  
8 alignment between the first and second images; and  
9                    blending the overlap section of the first image and the second image, including:  
10                    computing a pixel intensity of the pixels of first image in the overlap  
11                    section;  
12                    computing a pixel intensity of the pixels of the second image in the  
13                    overlap section that overlap the pixels of the first image in the overlap section; and  
14                    displaying for each pixel in the overlap section a largest pixel intensity of  
15                    the overlapping pixels from the first image and second image.

1                    16.    (Currently amended) ~~The method of claim 13 wherein blending~~  
2 ~~comprises:~~ A method of stitching a plurality of images, the method comprising:  
3                    providing a marker on a first image and a second image;  
4                    overlapping the first image and the second image to create an overlap section,  
5 wherein overlapping matches the marker on the first image with the marker on the second image;  
6                    calculating an absolute difference between the pixel intensity values of the  
7 overlapping portions of the first and second images in the overlap section so as to validate  
8 alignment between the first and second images; and  
9                    blending the overlap section of the first image and the second image, including:  
10                    computing a pixel intensity of the pixels of first image in the overlap  
11                    section;  
12                    computing a pixel intensity of the pixels of the second image in the  
13                    overlap section that overlap the pixels of the first image in the overlap section; and  
14                    displaying for each pixel in the overlap section a smallest computed pixel  
15                    intensity from the overlapping pixels from the first image and second image.

1           17.   (Original) The method of claim 13 wherein blending comprises:  
2           computing a pixel intensity of the pixels of first image in the overlap section;  
3           computing a pixel intensity of the pixels of the second image in the overlap  
4 section that overlap the pixels of the first image in the overlap section; and  
5           displaying for each pixel in the overlap section an average pixel intensity of the  
6 overlapping pixels of the first and second images in the overlap section.

1           18.   (Original) The method of claim 13 wherein blending comprises  
2 providing a smooth transition between the first image and second image by selectively providing  
3 from 0% of the first image to 100% of the first image in the overlap section.

1           19.   (Original) The method of claim 13 wherein blending comprises  
2 providing a smooth transition between the first image and second image by selectively providing  
3 from 0% to 100% of the second image.

1           20.   (Original) The method of claim 13 wherein the first and second images  
2 comprise a plurality of pixels, each of the pixels having a pixel intensity, wherein in the overlap  
3 section a portion of the pixels in the first image overlap a portion of the pixels in the second  
4 image, wherein the overlap section comprises a first end and a second end, wherein blending  
5 comprises:

6           displaying 100% of the pixel intensity of the first image at the first end of the  
7 overlap section;

8           displaying 50% of the pixel intensity of the first image with 50% of the pixel  
9 intensity of the overlapping pixels of the second image at a halfway point of the overlap section;  
10 and

11           displaying 100% of the pixel intensity of the second image at the second end of  
12 the overlap section.

1                   21.   (Original)   The method of claim 20 wherein blending further comprises  
2   displaying pixel intensities from the first image and the second image with a weighting for the  
3   combination which changes in a non-linear manner from the first end of the overlap section to  
4   the second end of the overlap section.

1                   22.   (Original)   The method of claim 20 wherein blending further comprises  
2   displaying pixel intensities from the first image and the second image with a weighting for the  
3   combination which changes in a linear manner from the first end of the overlap section to the  
4   second end of the overlap section.

1                   23.   (Original)   The method of claim 13 wherein the overlap section is black  
2   when the overlapping pixels of the first image and the second image have the same pixel  
3   intensity.

1                   24.   (Original)   The method of claim 23 wherein calculating is in real-time.

1                   25.   (Original)   The method of claim 13 wherein providing a marker  
2   comprises marking a first point on the first image and a second point on the second image, and  
3   wherein overlapping comprises matching the first and second points and keeping the orientation  
4   of the first and second image fixed.

1                   26.   (Original)   The method of claim 13 wherein providing a marker  
2   comprises marking a first point and a first line on the first image and a second point and second  
3   line on the second image, wherein superimposing comprises:  
4                   matching the first points and second points; and  
5                   rotating one of the first and second images so that the first line and second line are  
6   parallel.

1                   27.    (Original)   The method of claim 13 wherein providing a marker  
2   comprises marking a first line on the first image and a second line on the second image so that a  
3   last point of the first line and a first point of the second line are matched and wherein  
4   overlapping comprises rotating at least one of the images so as to make the first line and second  
5   line parallel.

28.    (Canceled)

1                   29.    (Currently amended)   The method of claim 13 ~~28~~ wherein the fixed step  
2   comprises a one pixel displacement.

1                   30.    (Currently amended)   The method of claim 13 ~~28~~ wherein the fixed steps  
2   comprise a 10 pixel displacement.

1                   31.    (Currently amended)   The method of claim 13 ~~28~~ wherein adjusting of  
2   the position of the image(s) is made in a fixed step by the use of a keyboard key or combination  
3   of keys.

1                   32.    (Currently amended)   The method of claim 13 ~~28~~ wherein the first image  
2   is rotated in a plurality of fixed steps by the use of a keyboard key.

1                   33.    (Original)   The method of claim 32 wherein the steps comprise a one  
2   quarter degree rotation.

1                   34.    (Original)   The method of claim 32 wherein the fixed step comprises a  
2   one degree rotation.

1                   35.    (Original)   The method of claim 32 wherein the fixed step comprises a  
2   ten degree rotation.

1                   36.    (Currently amended)   The method of claim 13 ~~28~~ comprising tracking the  
2   position of the moved image in real time.

1                   37.   (Currently amended) The method of claim 13 ~~28~~ comprising adjusting a  
2 center of rotation of at least one of the first and second image.

1                   38.   (Original) The method of claim 37 wherein adjusting comprises clicking  
2 and dragging a cursor over a selected image.

39-53. (Canceled)

1                   54.   (Original) A method of stitching a plurality of images, the method  
2 comprising:

3                   providing a first image and a second image;

4                   allowing a user to choose one of at least two of the following methods of  
5 marking:

6                               marking a first point on the first image and a second point on the second  
7 image;

8                               marking a first and second point on the first image and a third and fourth  
9 point on the second image;

10                              marking a first point and a first line on the first image and a second point  
11 and second line on the second image;

12                              marking a first line on the first image and a second line on the second  
13 image;

14                              marking the first image and second image with a chosen marker; and  
15 aligning the markers to stitch the first and second images together.

1                   55.   (Original) The method of claim 54 wherein marking comprises placing  
2 the first point on the first image and the second point on the second image , wherein aligning  
3 further comprises keeping the orientation of the first and second image fixed.

1                   56.    (Original)   The method of claim 54 wherein marking comprises placing  
2   the first point and the first line on the first image and the second point and second line on the  
3   second image, wherein aligning comprises matching the first points and second points and  
4   rotating one of the first and second images so that the first line and second line are parallel.

1                   57.    (Original)   The method of claim 54 wherein marking comprises placing  
2   the first point and second point on the first image and the third point and fourth point on the  
3   second image, wherein aligning comprises matching the first point with the third point and  
4   rotating one of the first image and second image until the second point and fourth points are  
5   matched.

1                   58.    (Original)   The method of claim 54 wherein marking comprises placing  
2   the first line on the first image and the second line on the second image, wherein aligning  
3   comprises overlapping the first line and second line so that a last point of the first line and a first  
4   point of the second line are matched, wherein at least one of the first and second images are  
5   rotated so as to make the first line and second line parallel.

59-61. (Canceled)

1                   62.    (Original)   A method of measuring an angle of scoliosis, the method  
2   comprising:  
3                   providing a first radiographic image of at least a portion of the thoracic and upper  
4   lumbar spine;  
5                   providing a second radiographic image of at least a portion of the lumbar and  
6   lower thoracic spine;  
7                   stitching the first radiographic image to the second radiographic image; and  
8                   measuring an angle of scoliosis on the stitched radiographic image.

1                   63.   (Original)   The method of claim 62 wherein measuring comprises placing  
2 two lines on the radiographic image and measuring the angle between the two lines.

1                   64.   (Original)   The method of claim 62 wherein measuring comprises:  
2 drawing a line in a disk space between two thoracic vertebrae parallel to an  
3 inferior surface of an upper vertebrae;  
4 drawing a second line in a disk space between two lumbar vertebrae, parallel to  
5 the inferior surface of an upper lumbar vertebrae;  
6 drawing a line perpendicular to each of the first and second lines such that the  
7 lines intersect; and  
8 calculating the angle at an intersection.

1                   65.   (Original)   The method of claim 62 comprising blending an overlap  
2 section of the first radiographic image and the second radiographic image.

1                   66.   (Original)   The method of claim 65 comprising validating a registration  
2 of the first image and second image by displaying an absolute difference between the first image  
3 and second image in the overlap section.

67.   (Canceled)

1                   68.   (Original)   A method of stitching a first image and a second image, the  
2 method comprising:  
3 providing at least a first marker on a first image and at least a second marker on  
4 the second image, wherein the first image and second image comprise a plurality of pixels;  
5 matching the first and second markers, wherein matching overlaps a portion of the  
6 first image and a portion of the second image; and  
7 selecting a desired blending method from a plurality of blending methods; and  
8 using the selected blending method to blend the overlapping portions of the first  
9 image and second image.